

ABSTRACT

According to the present invention, an apparatus,
a system and a method for transmitting a FM batch converted
5 signal and another signal on the same optical fiber can
be provided. For example, a first signal such as CATV
signal may be FM converted in batch. This converted signal
may then be frequency-multiplexed with a second signal
such as BS/CS satellite broadcasting RF signal to transmit
10 over optical fiber as an optical signal. The optical
signal transmitted via the optical fiber is
photoelectrically converted by a single photo-receiving
element and is frequency-separated by a filter after
passing through a preamplifier. The frequency-separated,
15 FM batch converted signal is FM-demodulated and restored
to the first signal, and the frequency-separated second
signal is converted to an IF signal by a BS/CS converter.
With appropriate setting of the center frequency of the
FM batch converted signal, the influence by spurious
20 interference can be minimized.